wherein R^2 and R^3 are independently selected from the group consisting of straight-chain or branched alkyl groups containing 1-21 carbon atoms, and R^4 is an alkylene group containing 1-21 carbon atoms;

m is an integer of at least 1, having an average of 4-20;

A^1 is an alkylene group containing 3 or 4-carbon atoms; and

n is 0 or an integer of at least 1, having an average of 0-15; wherein (C_2H_4O) and (A^1O), in case of the average of n being 1-15, are linked random-wise and/or block-wise; with

(II) at least one selected from the group consisting of a quinone type digestion assistant and a polysulfide.

2. (Twice Amended) An assistant for digesting a lignocellulose material, which comprises a combination of:

(I) a nonionic surfactant (B) obtained by addition of an alkylene oxide to an aliphatic alcohol, said nonionic surfactant (B) comprising one or more compounds represented by the general formula (3):

$$R^5\text{-}O\text{-}((C_2H_4O)_p \, / \, (A^2O)_q)\text{-}H \qquad\qquad (3)$$

wherein R^5 is a straight-chain, branched or cyclic aliphatic hydrocarbyl group containing 4-24 carbon atoms;

p is an addition molar number of 4-20;

A^2 is an alkylene group containing 3 or 4 carbon atoms; and

q is an addition molar number of 0 or 1-15; wherein (C_2H_4O) and (A^2O), in case of the average of q being 1-15, are linked random-wise and/or block-wise; said nonionic

surfactant (B) having a weight-average molecular weight (Mw) and a number-average molecular weight (Mn) providing a ratio of Mw/Mn satisfying the relationship

$$Mw/Mn \leq -0.183 \times K^{-0.930} \times LnX + 1.327 \times K^{-0.065} \qquad (4)$$

wherein LnX is a natural logarithm of X;

X is an average addition molar number of the alkylene oxide per 1 mole of the aliphatic alcohol; and

K is the number of carbon atoms in R^5 of the general formula (3); with

(II) at least one selected from the group consisting of a quinone type digestion assistant and a polysulfide.

5. (Twice Amended) An assistant for digesting a lignocellulose material, which comprises:

(a) at least one nonionic surfactant selected from the group consisting of a nonionic surfactant (A) and a nonionic surfactant (B) ; together with

(b) at least one anionic surfactant selected .from the group consisting of an anionic surfactant (C), an anionic surfactant (D) and anionic surfactant (E);

in a weight ratio of 100/0.1 - 100/30;

said nonionic surfactant (A) comprising one or more compounds represented by the general formula (1); said nonionic surfactant (B) being obtained by addition of an alkylene oxide to an aliphatic alcohol and comprising one or more compounds represented by the general formula (3) and having a weight-average molecular weight (Mw) and a number-average molecular weight (Mn) providing a ratio of Mw/Mn satisfying the relationship (4); said anionic surfactant (C) comprising one or more

compounds represented by the general formula (5); said anionic surfactant (D) comprising one or more compounds represented by the general formula (6); and said anionic surfactant (E) comprising one or more compounds represented by the general formula (7):

$$R^1\text{-O-}((C_2H_4O) / (A^1O)_n)\text{-H} \qquad (1)$$

$$R^5\text{-0-}((C_2H_4O)p/A^2O)_q)\text{-H} \qquad (3)$$

$$R^6\text{-SO}_3 M^1 \qquad (5)$$

$$\{R^6\text{-O-}(A^3O)_r\text{-}\}_k \overset{\displaystyle O}{\overset{\displaystyle \|}{P}}(\text{-OM}^2)_{3\text{-}k} \qquad (6)$$

$$R^7\text{-O-}(A^4O)_s\text{-}R^8\text{COOM}^3 \qquad (7)$$

wherein R^1 is a branched alkyl group containing 4-24 carbon atoms represented by the general formula (2):

$$\begin{array}{c} R^2\text{-CH-}R^{4\text{-}} \\ | \\ R^3 \end{array} \qquad (2)$$

wherein R^2 and R^3 are independently selected from the group consisting of straight-chain or branched alkyl groups containing 1-21 carbon atoms, and R^4 is an alkylene group containing 1-21 carbon atoms, R^5 and R^6 are straight-chain, branched or cyclic aliphatic hydrocarbyl groups containing 4-24 carbon atoms; R^7 is a straight-chain or branched alkyl group, alkenyl group, or mono- or di-hydroxyalkyl group, containing 4-24 carbon atoms; R^8 is an alkylene group containing 1-6 carbon atoms; m is an integer of at least 1, having an average of 4-20; p is a number of 4-20; A^1, A^2, A^3 and A^4 are alkylene groups containing 3 or 4 carbon atoms; n, r and s are 0 or an integer, of at least 1, having an average of 0-15; q is an addition molar number of 0 or 1-15; k is an

integer of 1 or 2; M^1, M^2 and M^3 monovalent cations; wherein (C_2H_4O) and (A^1O), or (C_2H_4O) and (A^2O), in case of the average of n or q being 1-15, are linked random-wise and/or block-wise;

$$Mw/Mn \leq -0.183 \times K^{-0.930} \times LnX + 1.327 \times K^{-0.065} \qquad (4)$$

wherein LnX is a natural logarithm of X; X is an average addition molar number of the alkylene oxide per 1 mole of the aliphatic alcohol; and K is the number of carbon atoms in R^5 of the general formula (3).

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7. (Twice Amended) A method for producing a pulp, which comprises digesting a lignocellulose material with an alkali or a sulfite in the presence of a digestion assistant; said assistant comprising at least one assistant (I) selected from the group consisting of:

(A) a nonionic surfactant comprising one or more compounds represented by the general formula (1):

$$R^1 -O-((C_2H_4O) / (A^1O)_n)-H \qquad (1);$$

(B) a nonionic surfactant, obtained by addition of an alkylene oxide to an aliphatic alcohol, comprising one or more compounds represented by the general formula (3):

$$R^5 -O-((C_2H_4O)_p / (A^2O)_q)-H \qquad (3);$$

and having a weight-average molecular weight (Mw) and a number-average molecular weight (Mn) providing a ratio of Mw/Mn satisfying the relationship (4);

$$Mw/Mn \leq -0.183 \times K^{-0.930} \times LnX + 1.327 \times K^{-0.065} \qquad (4);$$

(C) an anionic surfactant comprising one or more compounds represented by the general formula (5):

general formula (5):

$$R^6\text{-SO}_3\,M^1 \qquad (5)$$

(D) an anionic surfactant comprising one or more compounds represented by the general formula (6):

$$\{R^6\text{-O-}(A^3O)_r\text{--}\}_k \overset{\displaystyle O}{\overset{\displaystyle \|}{P}}(\text{-OM}^2)_{3\text{-}k} \qquad (6)$$

wherein R^1 is a branched alkyl group containing 4-24 carbon atoms represented by the general formula (2):

$$\begin{array}{c} R^2\text{-CH-}R^4\text{-} \\ | \\ R^3 \end{array} \qquad (2)$$

wherein R^2 and R^3 are independently selected from the group consisting of straight-chain or branched alkyl groups containing 1-21 carbon atoms, and R^4 is an alkylene group containing 1-21 carbon atoms; R^5 and R^6 are straight-chain, branched or cyclic aliphatic hydrocarbyl groups containing 4-24 carbon atoms; m is an integer of at least 1, having an average of 4-20; p is a number of 4-20; A^1, A^2 and A^3 are alkylene groups containing 3 or 4 carbon atoms; n and r are 0 or an integer of at least 1, having an average of 0-15; q is an addition molar number of 0 or 1-15; k is an integer of 1 or 2; M^1 and M^2 are monovalent cations wherein (C_2H_4O) and (A^1O), or (C_2H_4O) and (A^2O), in case of the average of n or q being 1-15, are linked random-wise and/or block-wise; LnX is a natural logarithm of X; X is an average addition molar number or the alkylene oxide per 1 mode of the aliphatic alcohol; and K is the number of carbon atoms in R^5 of the general formula (3).